



Figure 1

Figure 2

CAH MSSSEVKANGWTAVPVSAKAIIVDSLGLGVDVSSYSVEDIAFFPAADKLVAEAQAFVKARLS 60
CAH-H1 MCQNEVEVNGWTSMPADAGAI FDGGPFINVPEALSIEEIKFPVDDPIVEKTMRYAKAALP 60
CAH-H2 -----MSQYGFVRVPREVEKAIP-----VVNAPRPRAVVPVPPNSETARLVREYAAKELT 49
 :. *:. * :. . : * . . . :. *.

CAH PETYNHSMRVFYW-----GTVIARRLLPEQAKDLSPTWALTCLLHD 102
CAH-H1 TETFNHSMRVYYYGMQDCASHGVLINRSQALGMAITKQFPKQASALSPSTWALTCLLHD 120
CAH-H2 APVLNHSLSRVFYQ-----SVAIIRDQFP--AWDLQEVLYVTCLLHD 89
 . . ***:***: : * * * . . :*****

CAH VGTAEAYFTSTRMSFDIYGGIKAMEVLK-VLGSSTDQAEAAEAIIRHEDVGVDGNITFL 161
CAH-H1 IGTS DHNLAATRMSFDIYGGIKALEVLK-GFGATSDQAEAAEAIIRHQDLGVHGTITYI 179
CAH-H2 IATTDKNMRATKMSFEYYGGILSRELVFNATGGNQDYADAVTEAIIRHQDLTGTGYITL 149
 :.*: : :*:***: ***: :*: *.. * **:*****: * * * :

CAH GQLIQLATLYDNV GAYDGIDDFGSWVDDTTRNSINTAFPRHGWCSWFACTVRKEESNKPW 221
CAH-H1 GQLIQLATLYDNVGAHPYVKDFGELIHD TTRS QVHEAHPPGEWR TFFSGVIQKEQA IKPW 239
CAH-H2 GLILQIATTLDNVGSN-----TDLIHIDTVS AINEQFPRLHWLSCFATVVD TENS RKPW 203
 * :*:*** *****: . :. * . :. * * : * :. :*: ***

CAH CHTTHIPQ-FDKQMEANTLMKPWE 244
CAH-H1 CHTTKMVN-VLRKGSRHPDGQ--- 259
CAH-H2 GHTSSLGDDFSKKVICNTFGYN-- 225
 ** . : . : . : . :

Figure 3

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Ubi4      AAGCAAACGGTATAGCAACGGTGTTAACCTGATCTAGTGATCTCTTGCAATCCTTAACGG 60
UbiN      AAGCAAAGGGTATGGCAACTGTGTCACCGCCCTTCGCTG----CGTG-----TTAACGG 50
          *****
          * * * * *

Ubi4      CCACCTACCGCAGGTAGCAAACGGCGTCCCCCTCCTCGATATCTCCGCGGCGACCTCTGG 120
UbiN      CCACCAACCGCAGGTAGCAAACGGCGTGCACCTTCCCGAGATCTCCACAGCGAGGTCTGG 110
          *****
          * * * * *

Ubi4      CTTTTTCCGCGGAATTGCGCGGTGGGGACGGATTCCACAACCGCGACGCAA-CCGCCTCT 179
UbiN      CTTTTTCCGCCCTTCCCG-GAAACCGCGGTGGTTTC----AGCGTGGCGGATTCCCCCTCC 165
          *****
          * * * * *

Ubi4      CGCCGCTGGGCCCCACACCGCTCGGTGCCGTAGCCTCACGGGACTCTTTCTCCCTCCTCC 239
UbiN      CACCACCCAACCGC-CATAAATACCAGCCCCACCTCACT---CTCTTTGCATATCCATC 221
          * * * * *
          * * * * *

Ubi4      CCCGTTATAAATTGGCTTCATCCCCTCCTTGCCTC 274
UbiN      CAAATCCCA----GTCCCAATC----- 240
          * * * * *
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Figure 4. GUS-expression in *Agrobacterium*-infected alfalfa seedlings

